



# 1N5400 - 1N5408

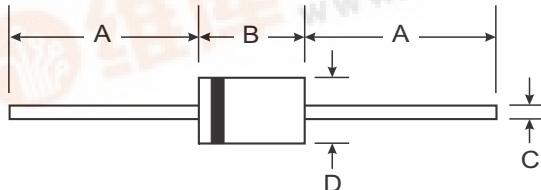
3.0A RECTIFIER

## Features

- Diffused Junction
- High Current Capability and Low Forward Voltage Drop
- Surge Overload Rating to 200A Peak
- Low Reverse Leakage Current
- Lead Free Finish, RoHS Compliant (Note 3)

## Mechanical Data

- Case: DO-201AD
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminals: Finish — Tin. Plated Leads Solderable per MIL-STD-202, Method 208 (e3)
- Polarity: Cathode Band
- Marking: Type Number
- Weight: 1.1 grams (approximate)



DO-201AD		
Dim	Min	Max
A	25.40	—
B	7.20	9.50
C	1.20	1.30
D	4.80	5.30

All Dimensions in mm

## Maximum Ratings and Electrical Characteristics

④  $T_A = 25^\circ\text{C}$  unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

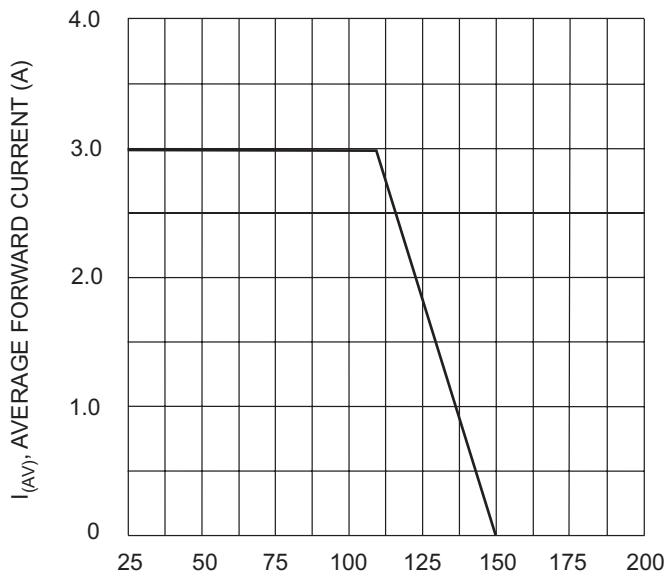
Characteristic	Symbol	1N 5400	1N 5401	1N 5402	1N 5404	1N 5406	1N 5407	1N 5408	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	V
Average Rectified Output Current ④ $T_A = 105^\circ\text{C}$ (Note 1)	$I_o$				3.0				A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load	$I_{FSM}$				200				A
Forward Voltage ④ $I_F = 3.0\text{A}$	$V_{FM}$				1.0				V
Peak Reverse Current ④ $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage ④ $T_A = 150^\circ\text{C}$	$I_{RM}$				10	100			$\mu\text{A}$
Typical Total Capacitance (Note 2)	$C_T$		50			25			pF
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$			15					$^\circ\text{C/W}$
Operating and Storage Temperature Range	$T_j, T_{STG}$			-65 to +150					$^\circ\text{C}$

Notes:

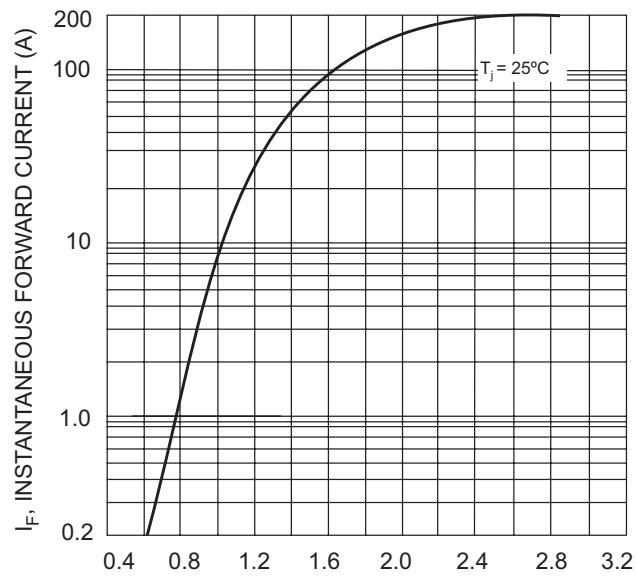
- Valid provided that leads are kept at ambient temperature at a distance of 9.5mm from the case.

2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

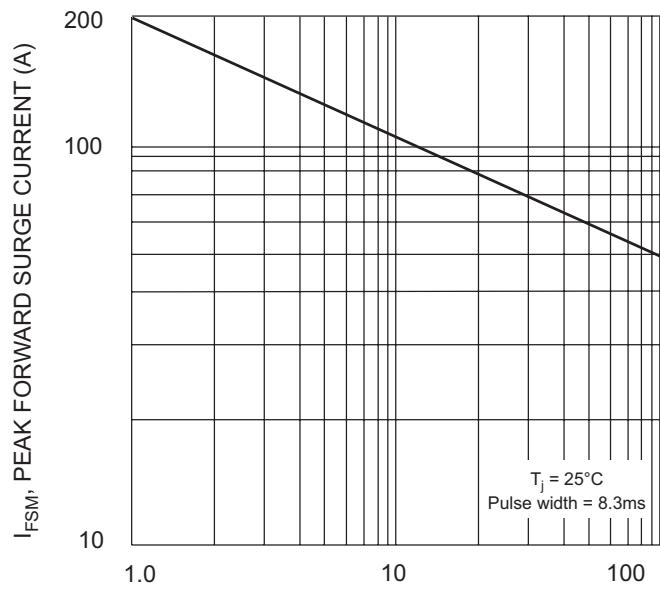
3. RoHS revision 13.2.2003. Glass and High Temperature Solder Exemptions Applied, see EU Directive Annex Notes 5 and 7.



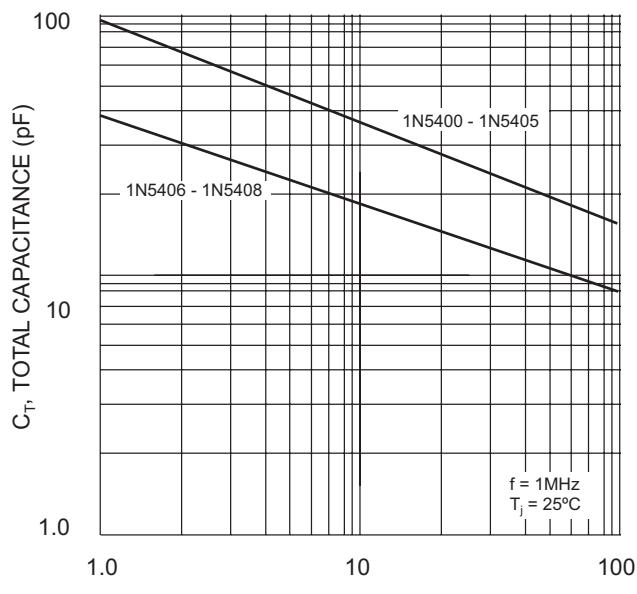
T<sub>A</sub>, AMBIENT TEMPERATURE (°C)  
Fig. 1 Forward Current Derating Curve



V<sub>F</sub>, INSTANTANEOUS FORWARD VOLTAGE (V)  
Fig. 2 Typical Forward Characteristics



NUMBER OF CYCLES AT 60Hz  
Fig. 3 Maximum Non-Repetitive Surge Current



V<sub>R</sub>, REVERSE VOLTAGE (V)  
Fig. 4 Typical Total Capacitance



## Ordering Information (Note 4)

Device	Packaging	Shipping
1N5400-B	DO-201AD	500 Bulk
1N5400-T	DO-201AD	1.2K/Tape & Reel, 13 inch
1N5401-B	DO-201AD	500 Bulk
1N5401-T	DO-201AD	1.2K/Tape & Reel, 13 inch
1N5402-B	DO-201AD	500 Bulk
1N5402-T	DO-201AD	1.2K/Tape & Reel, 13 inch
1N5404-B	DO-201AD	500 Bulk
1N5404-T	DO-201AD	1.2K/Tape & Reel, 13 inch
1N5406-B	DO-201AD	500 Bulk
1N5406-T	DO-201AD	1.2K/Tape & Reel, 13 inch
1N5407-B	DO-201AD	500 Bulk
1N5407-T	DO-201AD	1.2K/Tape & Reel, 13 inch
1N5408-B	DO-201AD	500 Bulk
1N5408-T	DO-201AD	1.2K/Tape & Reel, 13 inch

Notes: 4. For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02008.pdf>.

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